

Atty. Dkt. No. 0709.010.0002  
United States Serial No. 10/721,091

### AMENDMENTS TO THE CLAIMS

Please amend the previously presented claims according to the changes indicated in the following claim listing.

Please withdraw claims 40-58. Claims 19-39 were previously withdrawn.

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1. (currently amended) A method for quantifying an analyte in a sample, said method comprising:
    - a) administering a fusion protein to said sample, said fusion protein comprising a functional ~~periplasmic~~ mutant glucose-galactose binding protein ([P])GGBP, at least one labeling moiety and at least one fluorescent protein, wherein said fusion protein has a dissociation constant of at least 1mM towards said analyte;
    - b) measuring the luminescence value of said fusion protein at a first emission wavelength when said analyte is not bound to said functional mutant periplasmic glucose-galactose binding protein;
    - c) measuring the luminescence value of said fusion protein at said first emission wavelength, when said analyte is bound to said functional mutant glucose-galactose periplasmic binding protein;
    - d) determining the difference [[in]] between the measured the luminescence value of (b) and the measured luminescence value of (c) at said first emission wavelength, wherein said difference [[in]] between said measured luminescence values at said first emission wavelength is due to resonance energy transfer between said labeling moiety and said fluorescent protein when said analyte is bound to said fusion protein;